Company Name : Zoho, India.

Video Link:

Solution: Building Scalable Real-time Monitoring Systems on AWS

End to end monitoring of the applications which scans the end-user layer, application layer, platform layer, infrastructure layer.

Challenges faced before moving to AWS:

* Its a real-time monitoring solution by collecting metrics from users. So the handle high **VOLUME** of request, **ELASTICITY**, **SCALING** part is not able to handle using their own servers.

AWS SERVICES mentioned:

**CDN (Content Delivery Network) :** It is a network of interconnected servers that speeds up webpage loading for data-heavy applications. For info: <https://aws.amazon.com/what-is/cdn/>

**Route 53 :** highly available and scalable Domain Name System (DNS) web service. For info: <https://aws.amazon.com/route53/>

**ALB (Application Load Balancer)** : Load Balancer distributes incoming application traffic across multiple targets, such as EC2 instances, in multiple Availability Zones. For Info: <https://docs.aws.amazon.com/elasticloadbalancing/latest/application/introduction.html>

**SQS (Simple Queue Service) :** Fully managed message queues for microservices, distributed systems, and serverless applications. For info: <https://aws.amazon.com/sqs/>

**EC2 Instances(COLLECTORS/PROCESSORS):** Autoscaled which can handle the load and process it accordingly.

**REDIS:** Caching layer. in-memory data structure store

**Cassandra**: open-source, distributed, wide-column store, NoSQL database. It can be available in multiple availability zone. So that we can achieve high availability.

Other informations:

1. They have similar architecture at different region. Reason: to meet the data regulations. GDPR, CCPA compliance. Rules of each countries while dealing with their data.

Future Enhancement:

* Improvement the ROUTE 53 to geobased ROUTE 53
* Can replace EC2 instance with Lambda functions. Because lambda is very elastically scalable.
* AWS codedeploy for automate everything.